

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently amended) A method of operating a radio station in a broadcast network, said method comprising the steps of:

coupling a plurality of radio stations in said broadcast network;
detecting a fault condition in said radio station of said plurality of radio stations; and

communicating said fault condition to a control unit of said broadcast network; and

transmitting a modulated radio frequency signal through each of said plurality of radio stations at a synchronous rate.

2. (Original) The method of claim 1 wherein said step of communicating said fault condition comprises a step of enabling said radio station to transmit said fault condition to said control unit by a plurality of methods.

3. (Original) The method of claim 2 wherein said step of enabling said radio station transmitting said fault condition by a plurality of methods comprises transmitting said fault condition by a plurality of methods from a group consisting of:

sending an email;
sending a page;
calling a telephone number;
updating a web site; and
updating a database in said control unit.

4. (Previously presented) The method of claim 1 further comprising a step of enabling said radio station to periodically check its operating conditions.

5. (Original) The method of claim 4 further comprising a step of transmitting the status of said operating conditions to said control unit.

6. (Currently amended) A method of operating a radio station in a broadcast network, said method comprising the steps of coupling a plurality of radio stations in said broadcast network; enabling each said radio station of said plurality of radio stations to monitor its operating conditions; detecting a fault condition based upon said operating conditions; and communicating said fault condition to a control unit; and transmitting a modulated radio frequency signal through each of said plurality of radio stations at a synchronous rate.

7. (Previously presented) The method of claim 6 wherein said steps of detecting a fault condition comprises detecting a fault condition from a group consisting of:

- an AC Power Status fault;
- a DC Voltage Status fault
- a Broadcast Monitor Status fault
- a HAR Mode Status fault; and
- an outdated Message Status fault.

8. (Original) The method of claim 6 further comprising a step of tracking the configuration of said radio station by a time-based stamp.

9. (Original) The method of claim 6 further comprising a step of receiving a command from said control unit.

10. (Original) The method of claim 9 further comprising a step of providing a feedback signal indicating that said command was successfully executed by said radio station.

11. (Currently amended) A method of operating a radio station in a broadcast network, said method comprising the steps of:

coupling a plurality of radio stations in said broadcast network;
receiving a command at a radio station of said plurality of radio stations;
and

detecting a transmission method for a command received by said radio station; and

transmitting an amplitude modulated radio frequency signal through each of said plurality of radio stations at a synchronous rate.

12. (Original) The method of claim 11 wherein said step of detecting a transmission method comprises a step of determining whether DTMF tones or digital serial commands are transmitted.

13. (Original) The method of claim 12 further comprising a step of automatically adapting to the determined transmission method.

14. (Original) The method of claim 13 further comprising a step of executing said command.

15. (Original) The method of claim 14 further comprising a step of providing a feedback command that said command was successfully executed.

16. (Currently amended) A system for broadcasting a radio signal, said system comprising:

a central control computer;
a plurality of radio stations coupled to said central control computer; and
a user notification message transmitted by a radio station to said central control computer, said user notification message indicating a fault condition;
wherein each of said plurality of radio stations is configured to transmit a modulated radio frequency at a synchronous rate.

17. (Original) The system of claim 16 wherein each radio station of said plurality of radio stations comprises a fault detection circuit.

18. (Original) The system of claim 16 wherein each radio station of said plurality of radio stations comprises a receiver for receiving control signals from said central control computer.

19. (Original) The system of claim 16 further comprising a feedback loop between each said radio station and said central control computer.

20. (Original) The system of claim 19 wherein each radio station of said plurality of radio stations comprises a transmitter for coupling a feedback signal by way of said feedback loop from said radio station to said central control computer, said feedback signal indicating that said command was successfully executed by said radio station.

21. (Currently amended) A system for broadcasting a radio signal, said system comprising:

a central control computer generating a command;

a plurality of radio stations coupled to receive said command from said central control computer;

a feedback loop between each said radio station and said central control computer; and

a feedback signal coupled by way of said feedback loop from said radio station to said central control computer, said feedback signal indicating that said command was successfully executed by said radio station;

wherein each of said plurality of radio stations is configured to transmit a modulated radio frequency at a synchronous rate.

22. (Original) The system of claim 21 wherein each radio station of said plurality of radio stations comprises a fault detection circuit.

23. (Original) The system of claim 21 wherein each radio station of said plurality of radio stations comprises a receiver for a receiving control signals from said central control computer.

24. (Original) The system of claim 21 further comprising a user notification signal generated by said radio station in response to the detection by said radio station of a fault.

25. (Original) The system of claim 24 wherein said user notification signal is transmitted by a method from a group consisting of:

- sending an email;
- sending a page;
- calling a telephone number;
- updating a web site; and
- updating a database in said control unit.

26. (Previously presented) A highway advisory radio system comprising:

- an interface;
- a publicly switched network coupled to the interface;
- an amplitude modulating transmitter that encodes information received through the interface using a carrier wave of constant frequency having a varying amplitude;
- a controller programmed to manage the information encoded onto the carrier wave; and
- digital audio electronics configured to accept an input from a local handset and the controller;

wherein the controller is located away from the amplitude modulating transmitter and the digital audio electronics, and the controller is configured to transmit data using a transmission control protocol and an internet protocol.

27. (Previously presented) The highway advisory radio system of claim 26 wherein the digital audio electronics are configured to receive messages expressed through a combination of tones.

28. (Previously presented) The highway advisory radio system of claim 27 wherein the digital audio electronics are further configured to receive messages through digital commands.

29. (Previously presented) The highway advisory radio system of claim 26 wherein the digital audio electronics are further configured to receive messages through digital commands.

30. (Previously presented) The highway advisory radio system of claim 26 further comprising a modulator and a demodulator that enables the controller to communicate across the publicly switched network.

31. (Previously presented) The highway advisory radio system of claim 26 wherein the input comprises digitally encoded audio information.

32. (Previously presented) The highway advisory radio system of claim 26 wherein the input comprises a plurality of signals having frequencies in a range of perception of a human ear.

33. (Previously presented) The highway advisory radio system of claim 26 further comprising a frequency modulation transmitter that encodes information received through the interface.

34. (Previously presented) The highway advisory radio system of claim 26 further comprising a synchronizing device that coordinates a communication facilitated through the digital audio electronics with a second communication occurring at a second location.

35. (Previously presented) The highway advisory radio system of claim 26 further comprising a synchronizing device that matches a timing of a broadcast transmitted from the amplitude modulating transmitter with a second broadcast transmitted from a second amplitude modulating transmitter located away from the amplitude modulating transmitter.

36. (Previously presented) The highway advisory radio system of claim 35 wherein the amplitude modulating transmitter and the second amplitude modulating transmitter broadcast at a common frequency.

37. (Previously presented) The highway advisory radio system of claim 35 wherein the synchronizing device is configured to transmit a wireless sync signal.

38. (Previously presented) A highway advisory radio system comprising:

- an analog interface;
- a publicly switched telephone network coupled to the analog interface;
- an amplitude modulating transmitter that encodes information received through the analog interface using a carrier wave of constant frequency having a varying amplitude;
- a controller programmed to manage the information encoded onto the carrier wave and synchronize a plurality of broadcasts;
- digital audio electronics configured to accept an input from a local handset and the controller; and
- a modulator and a demodulator that enables the controller to communicate across the publicly switched telephone network;
- wherein the controller is located away from the amplitude modulating transmitter.

33. (Previously presented) A highway advisory radio system comprising:

- an analog interface;
- a publicly switched telephone network coupled to the analog interface;
- a first amplitude modulating transmitter that encodes information received through the analog interface using a carrier wave of constant frequency having a varying amplitude;
- a controller programmed to manage the information encoded onto the carrier wave;
- digital audio electronics configured to accept an audio input from a local handset and the controller;
- a modulator and a demodulator that enables the controller to communicate across the publicly switched telephone network; and
- a synchronizing device configured to synchronize a broadcast from the first amplitude modulating transmitter with a second broadcast transmitted from a second amplitude modulating transmitter;

wherein the controller is located away from the first amplitude modulating transmitter and the digital audio electronics, and the first amplitude modulating transmitter and the second amplitude modulating transmitter are configured to transmit highway advisories.

40. (Previously presented) The highway advisory radio system of claim 39 wherein the first amplitude modulating transmitter is located away from the second amplitude modulating transmitter.

41. (Previously presented) The highway advisory radio system of claim 39 wherein in the modulator and the demodulator enables the controller to communicate across the publicly switched telephone network in a serial format.

42. (Previously presented) The highway advisory radio system of claim 39 wherein the synchronizing device is configured to transmit a sync signal.

43. (Previously presented) The highway advisory radio system of claim 39 wherein the controller is programmed to monitor the publicly switched telephone network, the amplitude modulating transmitter, the controller, the digital audio electronics, the modulator and the demodulator, and the synchronizing device.

44. (Previously presented) The highway advisory radio system of claim 39 wherein the controller comprises a computer.